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AUTHOR	Bargnesi, Mary Lou; And Others
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ABSTRACT

This prospectus for a bookkeeping course is one of a series of business education position papers/curriculum guides developed for high schools in Connecticut to demonstrate that business courses can be used as part of an integrated academic and vocational curriculum. The guide is organized into the following six sections: (1) business department philosophy; (2) course philosophy for bookkeeping; (3) mathematics standards included in bookkeeping; (4) 7 course goals; (5) 13 student outcomes or competencies; (5) 26 methods of assessment of student outcomes; and (6) a list of 7 references to books and computer software used to prepare the guide. (KC)

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CROSS ACADEMIC CREDIT BOOKKEEPING

FINAL REPORT

PREPARED BY
THE NORWICH FREE ACADEMY
305 BROADWAY
NORWICH, CT 06360

PREPARED FOR

CONNECTICUT STATE DEPARTMENT OF EDUCATION
DIVISION OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION
BUREAU OF VOCATIONAL SERVICES
MIDDLETOWN, CONNECTICUT

PROJECT DIRECTOR: MARY LOU BARGNESI, Ph. D.
PROJECT STAFF: JOHN BALDWIN
MARY BETH McCUSKER

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Department Philosophy

The Business Education program, an integral part of a comprehensive secondary school curriculum, is designed to encompass life application skills; basic business, economic, and business administration education; college preparation; and vocational preparation. A business curriculum is for students who are preparing to enter the work force after graduation, a four-year college/university, or a two-year college/technical school. Course offerings focus on instruction in economic education, initial job preparation, and all areas of communication - reading, writing, speaking, listening, and computing. Computer education should be an integral part of the program, and computer applications should be integrated into all courses.

Therefore, **WE BELIEVE THAT BUSINESS EDUCATION -**

1. Has a responsibility to help all high school students to develop business, economic, and computer literacy.

2. Provides needed leadership experiences through its student organizations.

3. Provides occupational preparation for those students who will enter the work force upon completing high school.

4. Provides courses which should be accepted as meeting specific general education and high school graduation requirements.

5. Provides courses which should be recognized as appropriate electives for college-bound students and should be accepted by colleges and universities as meeting part of their entrance requirements.

Course Philosophy

Bookkeeping is designed to equip students with basic clerical and computational skills common to the record keeping required in entry-level clerical positions. Bookkeeping will also increase the students' abilities to read, speak, spell, and recognize the meanings of common business and bookkeeping terms.

Bookkeeping will help students develop those work habits and attitudes that will lead to success on the job and provide the skills and knowledge that students can use in everyday personal business activities.

Mathematics Standards Included in Bookkeeping

In 1986, the Board of Directors of the National Council of Teachers of mathematics established the Commission on Standards for School mathematics as one means to help improve the quality of school mathematics. Their product was a set of standards for mathematics curricula in North American schools (K-12).

Of the fourteen total standards established for grades 9-12, the following ones relate directly to the bookkeeping curriculum:

STANDARD 1: MATHEMATICS AND BOOKKEEPING AS PROBLEM SOLVING
In grades 9-12, the mathematics curriculum should include the refinement and extension of methods of mathematical problem solving so that all students can:

- o use, with increasing confidence, problem-solving approaches to investigate and understand mathematical content;
- o apply integrated mathematical problem-solving strategies to solve problems from within and outside mathematics;
- o recognize and formulate problems from situations within and outside mathematics;
- o apply the process of mathematical modeling to real-world problem situations.

STANDARD 2: MATHEMATICS AND BOOKKEEPING AS COMMUNICATION
In grades 9-12, the mathematics curriculum should include the continued development of language and symbolism to communicate mathematical ideas so that all students can:

- o reflect upon and clarify their thinking about mathematical ideas and relationships;
- o formulate mathematical definitions and express generalizations discovered through investigation;
- o express mathematical ideas orally and in writing;
- o read written presentations of mathematics with understanding;
- o ask clarifying and extending questions related to mathematics they have read or heard about;
- o appreciate the economy, power, and elegance of mathematical notation and its role in the development of mathematical ideas.

STANDARD 3: MATHEMATICS AND BOOKKEEPING AS REASONING
In grades 9-12, the mathematics curriculum should include numerous and varied experiences that reinforce and extend logical reasoning skills so that all students can:

- o make and test conjectures;
- o formulate counterexamples;
- o follow logical arguments;
- o judge the validity of arguments;
- o construct simple valid arguments;

STANDARD 4: MATHEMATICAL AND BOOKKEEPING CONNECTIONS
In grades 9-12, the mathematics curriculum should include investigation of the connections and interplay among various mathematical topics and their applications so that all students can:

- o recognize equivalent representations of the same concept;
- o relate procedures in one representation of procedures in an equivalent representation;
- o use and value the connections among mathematical topics;
- o use and value the connections between mathematics and other disciplines.

STANDARD 10: STATISTICS
In grades 9-12, the mathematics curriculum should include the continued study of data analysis and statistics so that all students can:

- o construct and draw inferences from charts, tables, and graphs that summarize data from real-world situations;
- o use curve fitting to predict from data;

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Course Goals

Bookkeeping will:

1. Provide realistic business problems.

2. Equip students with basic clerical and computational skills common to the record keeping required in such office and sales occupations as cashier, salesclerk, stock clerk, payroll clerk, owner of a small business, general office worker, posting clerk, accounting clerk, and other entry-level positions.

3. Provide students with an understanding of business forms and procedures.

4. Familiarize students with computer applications to record keeping processes.

5. Increase the students' abilities to read, speak, spell, and recognize the meanings of common business and record keeping terms.

6. Help students develop those work habits and attitudes that will lead to success on the job.

7. Provide the skills and knowledge that students can use in everyday personal business activities.

Student Competencies

Students will be able to:

1. Prove cash in cash registers, and cashier's daily reports.
2. Write checks, keep a check book, prepare bank reconciliation statements.
3. Keep personal, family and business budgets.
4. Prepare petty cash vouchers and implement a petty cash book.
5. Handle sales returns and statements of account.
6. Prepare sales invoices, and understand the use of sales journals, cash receipts journals and sales returns and allowances journals.
7. Complete sales slips and compute sales tax.
8. Keep stock record cards and prepare requisitions and a record of goods expected.
9. Prepare price quotation cards, purchase orders and receiving reports.
10. Use a purchase journal, cash payment journal, and purchase returns and allowances journal.
11. Compute wages of workers, use a payroll book, use a wage computation book and computing overtime.
12. Compute social security taxes, determine withholding taxes and prepare wage and tax statements.
13. Prepare an income statement and record income in the general ledger.

Student Outcome/Assessment Methodology

Students will be able:

1. Given a columnar business record (such as a payroll journal or an inventory sheet) complete with penciled entries, the student will complete the line extensions, add the columns, prove the accuracy of the entries, and foot and rule the record sheet with complete math accuracy and following accepted accounting procedures.

2. Given a bank statement, 12 canceled checks, and a check register covering at least 3 deposits, and with 15 checks having been written, the student will reconcile the bank statement with complete accuracy.

3. Given copies of 20 sales invoices and 15 minutes time, the student will be able to copy the name of the customer, terms, invoice number, and the amount of the sale to a columnar form with complete accuracy and so that all information is legible.

4. Given 20 problems requiring the addition, subtraction, multiplication, and division of whole numbers or dollar amounts, the student will perform the math functions without the aid of a calculator.

5. Given a columnar income and expense form for recording family business dealings and 20 transactions, the student will record the transactions and total the columns.

6. Given the amount of monthly income for a family of four and a list of typical family expenditures such as household, health, transportation, education, food, clothing, utilities, gifts, entertainment, and savings the student will prepare a monthly family budget.

7. Given a set of at least 100 sales invoices or other numbered business documents, the student will arrange the documents in correct numeric order within a specified period of time and with all documents correctly filed.

8. Given a set of at least 100 customer name and address slips or other documents with alphabetic identifiers, the student will arrange the documents in correct alphabetic order by customer names within a specified period of time and with all documents correctly.

9. Given a list of materials, such as an inventory list complete with part numbers, prices, and goods on hand and an assignment to look up and then record 40 specific items of information, the student will locate and record the required information and with complete legibility.

10. Given 15 real or simulated business forms and documents such as the following: promissory note, bank draft, sales invoice, payroll check, purchase invoice, inventory card, telephone message form, petty cash voucher, receipt, payroll register, time card employees withholding exemption form, job application form, and interoffice memo, the student will explain the purpose and use of each form or document with no more than two forms incorrectly interpreted.

11. Given 20 basic accounting and bookkeeping terms such as the following: foot and rule, balance, on account, net 30, returns and allowances, post source document, original entry, ledger, correcting entry, owner's equity, liability, account receivable, open account, back order, running inventory, asset, debtor, posting reference, profit and loss sheet, and a list of definitions of those terms, the student will match the terms and definitions.

12. Given a description of a small home business operation, the student will describe the type of record system that would be appropriate for the business.

13. Given a simulated payroll check stub, the student will indicate the titles of the accounts of the issuing business that would be affected by each amount shown on the stub.

14. Given five blank source documents such as purchase orders, sales invoices, checks, and transactions to be recorded on each of those documents, the student will enter the transactions with pencil so that all writing is legible, all data is correctly recorded in the appropriate blanks and columns, and all calculations are correct.

15. Given 10 business documents from a business with each document involving purchases, sales, borrowing, repaying a debt, payment of utilities, or some similar transaction, the student will be able to analyze each document and explain what its effect would be upon the business.

16. Given 20 accounts receivable accounts, some with balances, the student will be able to select those accounts that are owing and will prepare statements of each account with at least 19 bills completed.

17. Given a cash drawer at the end of a shift, with a beginning and ending balance, the student will be able to prove cash in the cash register and prepare a daily cashier's report with 100 percent accuracy.

18. Given the requests for items such as postage stamps, gas for company van, etc, the student will prepare petty cash vouchers for a specific item and implement these vouchers into a petty cash book, with legibility and complete accuracy.

19. Given items that need to be purchased, the student will be able to complete sales slips providing the purchase item price, quantity purchased and total for each item and also compute the sales tax for the total sales slip price, with correct extensions and complete accuracy.

20. Given inventory stock items, the students will prepare stock record cards recording the amount of inventory issued and received, prepare purchase requisitions when inventory falls below minimum and keep a record of goods below minimum and keep a record of goods expected with complete legibility.

21. Given returns from sales slips, the student will adjust the customers account appropriately, and prepare the monthly statements of accounts with 90% accuracy.

22. Given 5 sales invoices, 5 checks received and 5 credit memos, the student will understand the nature of each entry and disperse them to the proper journals.

23. Given an inventory item, the student will prepare price quotations for each item in inventory, prepare purchase orders when necessary and receiving reports when items are received, with legibility and accuracy.

24. Given 10 employees, the student will compute the wages for each employee (including any overtime), determine the amount of deductions and disperse this information into the payroll book.

25. Given 10 employees, the student will compute the social security tax and withholding taxes for each employee and prepare wage and tax statements with complete accuracy.

26. Given income and expenses, the student will prepare an income statement and record income in the general ledger with complete accuracy.

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